

SOUTH CAROLINA HIGHWAY PATROL

EMERGENCY TRAFFIC MANAGEMENT

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Director



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REMOTE CONTROLLED HELICOPTER PROPOSAL

Problem Statement:

Currently, when investigating a collision, we can only use allied agencies' helicopters in order to obtain aerial photographs and videos of a collision scene.

Why is this a problem? Aerial photography provides a unique perspective that is unmatched in effectively providing data and describing a collision scene. Currently, MAIT uses mapping tools and software in order to provide a scale diagram. This method, though tried and true, consumes precious times that affects traffic, as interstates remain blocked for hours. Many times this requires the use of resources from police and sheriffs departments, fire departments, and the Department of Transportation. In order to obtain aerial photographs and video, MAIT utilizes resources from the South Carolina Law Enforcement Division (SLED), the Charleston County Sheriffs Department, and other entities that possess aviation equipment. This is expensive and may not always be at our disposal.

We touched on the Traffic Incident Management issue briefly, but understanding what we know now about effective traffic management, we are obligated to explore ways to decrease interstate blockages. Not only is it important that we collect evidence to support prosecution in traffic fatalities, but it is imperative we manage the collision scene effectively, to mitigate collateral crashes that have the potential to result in injury or death. The longer an interstate highway remains blocked, the greater the chance of secondary collisions occurring.

Why is Traffic Incident Management Important? (*National Traffic Incident Management Coalition*, page 1 sidebar)

- Incidents are estimated to cause between 53% and 58% of total delay experience by motorists in all urban areas
- Crashes that result from other incidents make up 14%--18% of all crashes. These secondary crashes are estimated to 18% of deaths on the freeways.



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- In 2002, approximately half of police, EMS, and firefighter fatalities occurred as a result of transportation incidents. About 10% of firefighter and nearly 8% of police officer deaths were caused by a worker being struck by a vehicle.
- Nearly 10,000 police cars; 2,000 fire trucks; and 3,000 other service vehicles are struck going to or at a traffic incident.
- In 2002, traffic incident management programs, including surveillance cameras and service patrols, reduced congestion in 56 urban areas by 117 million hours. The annual cost saving resulting from traffic incident management programs in 75 urban areas was estimated to \$2.3 billion.

Mission Support:

We request funding to purchase two (2) remote controlled helicopters. These helicopters will assist with taking photographs and videos of collision scenes. Not only does this provide obvious benefits for prosecution, it will provide data to create scale diagrams using reconstruction software. This benefit provides a reduction in man-hours, because it takes much less time to fly the helicopter over a scene instead of mapping the scene with traditional tools. This means the roadway opens faster, thereby reducing traffic delays and secondary collisions. Estimates show that for every minute a lane of an interstate highway is closed, it causes six minutes of congestion. The reduction of on-scene time is also safer for all personnel involved. Prosecutors will also benefit by this new information and technology. They can use the pictures and video to better present a case criminal against a defendant. This will also lead to a higher conviction rate and reduced collisions and fatalities statewide.

The helicopter will also provide photographs and video of currently inaccessible areas. It will also provide support and photographic evidence for hazardous material scenes, such as the Graniteville incident in Aiken, South Carolina in 2005. We can assist allied agencies on an as needed basis in order to provide surveillance and photographic evidence in a variety of scenes.

The purchase of two (2) helicopters provides immediate support to the entire state. Deploying these helicopters throughout the state will aid in evidence collection, and reducing the amount of time an affected interstate highway is closed.

The cost for this platform is \$6,500.00, for a total of \$13,000.00 for the pair.

Performance Measurement:

MAIT will utilize the helicopter in all applicable areas, mainly the areas of the greatest traffic congestion, in order to reduce the time constraint on the investigators and the motoring public, while reducing the potential of secondary collisions.

MAIT will also provide statistical information about the usage and benefits of the helicopter, to include the time it takes to complete the scene documentation and the subsequent opening of the collision scene.





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